

# STATE OF DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL 89 Kings Highway

Office of the Secretary

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April 22, 2010

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Mr. Jerry Pasquale US Army Corps of Engineers Philadelphia District 100 Penn Square East Philadelphia, PA 19107

Dear Mr. Pasquale:

The Department of Natural Resources and Environmental Control (the Department) is committed to a timely, efficient, and transparent process in considering the U.S. Army Corps of Engineers' Delaware Wetlands and Subaqueous Lands Permit Application (the Application) for deepening the Delaware River Federal Navigation Channel from 40 to 45 feet. To this end, we have conducted an initial review of the Application within 30 days of receipt. Our review has focused primarily on the areas of deficiency in the previous application, which the Department previously identified in our letters of December 30, 2008, and July 23, 2009. This letter also will serve to notify you within the required 30 days regarding the completeness of the Wetlands portion of the Application.

Based upon our initial review, there remain a number of outstanding environmental and economic issues; and as such, we request that you provide additional information that will better allow us to make well-informed and reasonable permit decision in a timely and efficient manner.

#### 1. Water Quality

(Section 4.7.1.1 of the <u>Regulations Governing the Use of Subaqueous Lands</u>)

The Division of Water Resources evaluated the data provided concerning toxics in the sediments of the main navigation channel and non-channel areas. This includes a review of a draft set of data from the Partnership for the Delaware Estuary provided to the Department in late February as well as a preliminary analysis of samples collected from the deepening project that began in March according to updated protocols agreed to by the Corps and the Department. As a result, our evaluation indicates a low potential for water quality impacts associated with toxics released as a result of deepening the main channel within Delaware waters.

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However, as indicated in more detail in Section 3 below, the Department remains concerned that spur channels and berthing areas that may be deepened to take advantage of a deeper main channel are under-characterized with regard to toxics and potential impacts, and may have the potential for toxicity concerns. We believe this issue falls within the category of secondary impacts associated with the deepening project; and as such, this issue should be addressed as part of a complete Subaqueous Lands Permit Application. The Application should be supplemented with the information to characterize the water quality impacts from dredging these areas.

#### 2. Sensitive Fisheries

(Sections 4.7.1.2, 4.7.1.4, and 4.7.5.5 of the Regulations Governing the Use of Subaqueous Lands)

The Division of Fish and Wildlife reviewed the Application and identified multiple questions requiring additional information.

Sturgeon—New data related to early stage Atlantic sturgeon has come to light that indicates that the 2005 sturgeon study vastly underestimated sturgeon use of the Marcus Hook anchorage and Tinicum Island area in the wintertime. Mitigation measures proposed by the Corps will likely be ineffective with juvenile sturgeon during wintertime. Therefore, further coordination and modification of the proposed blasting windows and mitigation measures may be necessary. The Application should be updated to reflect any changes agreed-upon.

Sandbar shark—We reviewed the Corps' description of methods to minimize impacts to sandbar sharks and believe that further coordination with the Department, the U.S. Fish and Wildlife Service, and National Marine Fisheries Service is necessary. The Department's Division of Fish and Wildlife remains concerned about protection of sandbar sharks because the sandbar shark population has declined precipitously during the planning period for this project and the sandbar shark has become the subject of recent intensive management efforts. The lower Delaware Bay is the most important annual pupping habitat, from May 15-July 15, for this shark on the Atlantic coast. As such, we would like to discuss ways to modify the dredge cutter head to protect adults that might be attracted to it as they would be to a chum slick, and request more information about the Corps' plans to protect juveniles using time of year restrictions.

Sea Turtles—The 2009 Environmental Assessment does not adequately address the potential impact to sea turtles and makes inaccurate statements about sea turtle use and abundance in the Delaware Estuary. The Corps does not appear to be undertaking all Reasonable and Prudent Measures (RPMs) to minimize impacts to sea turtles from dredging activities, as identified in the National Marine Fisheries Service Biological Opinion, which states on page 67: "Sea turtles are likely to occur in Delaware Bay from May through mid-November each year with the largest numbers present from June through October of any year (Stetzar 2002). The Delaware Estuary is an important foraging area for sea turtles and an important developmental habitat for juvenile sea turtles, particularly loggerheads. The areas to be dredged and the depths preferred by sea turtles do overlap, suggesting that if suitable forage was present, loggerheads and Kemp's ridleys may be foraging in the channel areas where dredging will occur." Additional comments and concerns regarding sea turtles are included

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as an attachment to this letter. Please revise the permit Application to include more detail regarding measures that will be implemented to minimize sea turtle impacts.

# **Environmental Windows**

Blue Crab—Pages 4 and 6 of the Corps' July 24, 2009, response letter provide contradictory information regarding blue crab impact avoidance. Page 4 states that windows for blue crabs will be observed from mile 32 south to the mouth of the Bay, but Page 6 of the same letter indicates that windows will <u>not</u> be met below mile 32 or for any work at Kelly Island or Broadkill Beach. Please provide clarification of this issue.

# 3. Secondary and Cumulative Impacts

(Sections 4.7.3 and 4.7.5.4 of the Regulations Governing the Use of Subaqueous Lands)

# Lateral Access Channels

The navigation channels and/or berthing areas associated with the Port of Wilmington, the Delaware City Refinery, the Sunoco Refinery, Oceanport Industries, General Chemical, Delmarva Power and Light, the Logan Generating Station, and the DuPont Edgemoor and Chambers Works facilities have been omitted from consideration as potential future access channels or berthing areas located in Delaware waters that should be assessed for secondary impact evaluation. These facilities should be included as part of the Subaqueous Lands Permit Application secondary impact analysis. Full sediment characterization, water quality effects of initial construction and maintenance, and ongoing dredged material management for maintaining deeper depths should be addressed. This also will affect the Department's evaluation of the cost-benefit analysis, as it is difficult to assert any potential benefits to the State of Delaware or its industries without also assessing the secondary impacts of constructing and maintaining new access to the deeper navigation channel.

#### Updated Salinity Model

(Sections 4.7.1.3 and 4.7.1.4 of the <u>Regulations Governing the Use of Subaqueous Lands</u>)

The model submitted with the current Application has not been updated since the Department's previous review of the April, 2009 EA. Our review at that time expressed concerns about the model. The Corps' July 24, 2009, letter indicates that additional sea level rise scenarios have been added as model runs but does not address the Department's underlying concerns about the model itself. More detailed questions and concerns have been included as an attachment to this letter. Please update the model to address these concerns.

### Sediment Budget Impacts

(Section 4.7.1.6 of the <u>Regulations Governing the Use of Subaqueous Lands</u>)

The Department remains concerned about the effect of the deepening on sediment delivery to adjacent marshes as well as shallow water habitat and shoals within the Delaware River and Bay. The Department continues to seek additional information to address this issue. Please provide to the Department additional information to address the long-term effects of the deepening on the estuary.

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# Changes to Ship Traffic

Specifically, the Corps should address whether the increased channel depth will allow or encourage use by different vessel types than those currently using the channel, which may pose new or increased environmental or public safety risks.

# 4. Operational Concerns

# **Economic Loading**

The Corps' July 24, 2009, letter states that economic loading will not be employed for any portion of the project. Can you confirm that economic loading will not be used in the reaches proposed for hopper dredging (Reaches D and E)? If economic loading is to be utilized, additional assessment of potential water quality effects will be required.

# Rock Removal

(Section 4.6.7 of the <u>Regulations Governing the Use of Subaqueous Lands</u>)

The Department consistently has requested all rock that results from the blasting operations near Marcus Hook, regardless of size or whether it has been sorted, be beneficially reused in Delaware waters. However, it does not appear that the Corps intends to provide this material as requested. Further consultation with the Department's Fisheries Section is requested.

# Air Quality Conformity

(Section 4.7.1.5 of the Regulations Governing the Use of Subaqueous Lands)

The Corps is attempting to demonstrate general conformity for nitrogen oxides (NOx) by offsetting direct NOx emissions through the purchase of Emission Reduction Credits (ERCs). The Corps submitted to the Department a March 4, 2010, letter that indicated the Philadelphia Regional Port Authority (PRPA) has "acquired the necessary NOx emission reduction credits (ERCs) to construct the project." Attached to that letter was a February 26, 2010, letter from PRPA stating the PRPA "hereby dedicates the acquired credits for the exclusive use in connection with the project for the duration of the initial project construction," and that identified a total of 873.72 NOx credits; 37 from Delaware, 755.72 from New Jersey, and 81 from Pennsylvania.

Delaware has validated that the 37 Delaware ERCs obtained from Lafarge are valid, and are surplus to Delaware's ozone and fine particulate matter SIPs (reference DE SIP FOR ATTAINMENT OF THE 8-HOUR OZONE NAAQS, Reasonable Further Progress and Attainment Demonstration, June 2007, Page 27; and DE SIP FOR ATTAINMENT OF THE PM2.5 ANNUAL NAAQS, Attainment Demonstration, January 3, 2008, Page 55). These 37 ERCs are now used as emission offsets, and are no longer available for sale, trade, or future use.

Additional information and documentation from the Corps is requested as follows:

- 266.1 tons per year of credits are identified as having been created in Cumberland County, NJ. Cumberland County, NJ is outside the PM2.5 non-attainment area boundary and therefore not eligible to satisfy the conformity requirements. Please explain how the Corps plans to satisfy the shortfall.
- Certification/documentation that the PA and NJ credits are surplus to those states ozone and fine particulate matter SIPs. This is necessary as Delaware is part of multi-state ozone and fine particulate matter nonattainment areas.
- Documentation that demonstrates the PA and NJ credits are now used as emission offsets and are no longer available for sale, trade, or future use.

# 5. Updated Dredge Material Disposal Plan

(Section 4.6.7 of the <u>Regulations Governing the Use of Subaqueous Lands</u> and Section 12.0 of the Wetlands Regulations)

The Department has significant concerns about the Kelly Island project and use of this site for dredged material disposal from the main channel deepening project. The concerns are focused on the significant changes that have occurred at the site as a result of erosion over the intervening years, as well as the quality of the geophysical sediment data that the Corps has provided to date. The fine grained quality of the sand material to be used may be poorly suited for the intended purpose, making it unlikely that the project can provide the habitat needed for horseshoe crabs or shorebirds and potentially results in a more degraded habitat condition rather than an improved one. If a dike should fail, the sediment load could be catastrophic to the adjacent oyster beds. The shoreline has eroded back to the point where it is no longer feasible to use this project to protect the Port Mahon public ramp. And with sea level rise considerations, the Department is concerned that a project constructed under current conditions will become harder to maintain over time.

The Department offers to work with the Corps to identify other potential sites where beneficial reuse of dredged material can occur in Delaware. One possibility may be restoration of the interior marshes within Bombay Hook National Wildlife Refuge. Toward that end, and in order to supplement the Corps' limited geophysical data, the Department is undertaking its own mapping of the sediments in the portion of the main channel that would have been used for the Kelly Island project and is hopeful that the information can be utilized in choosing and designing an alternative beneficial reuse site. The Department requests that the Corps pursue an alternative beneficial re-use project and supplement its Application with a conceptual project plan.

#### 6. Cost Benefit Ratio

(Section 4.6.8 of the Regulations Governing the Use of Subaqueous Lands)

The Department is required to consider the public benefits of a project versus the public detriments. The U.S. Government Accounting Office recently released an updated cost-benefit analysis on the proposed project; however, this analysis was limited in scope. In 2004, the Corps provided an economic analysis as part of its permit Application. The 2008 and 2009 Economic Updates revised the project benefit estimates of the 2004 study to reflect

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the current price level and discount rate, but did not provide sufficient information for the department to conduct a thorough analysis. For example, while the 2004 economic analysis and subsequent updates did review certain commodity growth rates and provided limited sensitivity analyses, they did not contain any substantive market analyses or include information regarding changes to current or projected industry conditions, such as impacts to crude oil and containerized cargo—two of the project's main benefiting categories. Please submit any additional information that will assist the Department in its economic review.

To summarize, the Corps' permit Application lacks sufficient information to allow the Department to make a well-informed and reasonable permit decision and we request that additional information be provided in the areas identified above. However, the Department is committed to an efficient, timely, and transparent permitting process and as such plans to publicly notice the Application in the coming weeks. Within two weeks of the date of this letter, please advise me if the Corps will supplement its permit Application and provide the Department with a proposed timetable for submitting the requested information. Shortly thereafter, we will work with you to schedule a hearing, ideally on or about the middle of June 2010. The Department intends to conduct the hearing and the decision-making process according to the schedule proposed in my October 29, 2009, affidavit.

If you have any questions, please contact Laura Herr, Section Manager, Wetlands and Subaqueous Lands, at (302) 739-9943.

Sincerely,

Collin P. O'Mara

Secretary

cc: Kathy Bunting-Howarth, DNREC Laura Herr, DNREC